

# From mimicry to mime by way of mimesis: Reflections on a general theory of iconicity<sup>1</sup>

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**Abstract.** Practically all theories of iconicity are denunciations of its subject matter (for example, those of Goodman, Bierman and the early Eco). My own theory of iconicity was developed in order to save a particular kind of iconicity, pictoriality, from such criticism. In this interest, I distinguished pure iconicity, iconic ground, and iconic sign, on one hand, and primary and secondary iconic signs, on the other hand. Since then, however, several things have happened. The conceptual tools that I created to explain pictoriality have been shown by others to be relevant to linguistic iconicity. On the other hand, semioticians with points of departure different from mine have identified mimicry as it is commonly found in the animal world as a species of iconicity. In the evolutionary semiotics of Deacon,

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<sup>1</sup> My preoccupation with iconicity has been life-long, but the different projects with which I have been involved since the beginning of this century (SGB and SEDSU), and the collaboration within the Centre for cognitive semiotics, which I am heading since January 2009, has offered me new vistas on my old theme, which I have tried to exploit in the present paper. I want to acknowledge here the assistance afforded by numerous discussions in the above-mentioned fora. The author wants to acknowledge the stimulating remarks made on an earlier version of this paper by Timo Maran and Ester Vösu, which have been attended to in the following.

iconicity is referred to in such a general way that it seems to be emptied of all content, while in the variety invented by Donald the term mimesis is used for a particular phase in the evolution of iconic meaning. The aim of this article is to consider to what extent the extension of iconicity theory to new domains will necessitate the development of new models.

Within the framework of Peircean philosophy, iconic signs have always been taken for granted. In other quarters, on the contrary, their existence has been called into question: by philosophers such as Arthur Bierman and Nelson Goodman, as well as semioticians such as Umberto Eco and René Lindakens. In a series of works, starting with Sonesson (1989), I have tried to rehabilitate the idea of iconicity, at least in the case of pictures, without identifying it with “tautology”, as Roland Barthes (1964) did, or with “frozen mirrors”, as was recently suggested by Eco (1999), in a work which constituted a radical volte-face in relation to his earlier views. In the present article, I will refrain from spelling out my criticism of Goodman, Bierman, Eco, and others (see Sonesson 1989, 1993, 1995, 2000a), but will instead formulate my findings as a positive theory, and then go on to consider some further problems.

The conception of iconicity presented in this paper derives from an approach variously known as “the Swedish school”, “the ecological school”, and “the phenomenological school” (see Saint-Martin 1994; Carani 1999; Nordström 2000). The foundations of this conception are neither the teachings of Charles Sanders Peirce nor those of Ferdinand de Saussure, but the phenomenology of Edmund Husserl, as developed by, among others, Aron Gurwitsch, Alfred Schütz, and Maurice Merleau-Ponty. This approach to iconicity, however, was first taken in my book *Pictorial Concepts* (Sonesson 1989). An implication of this conception is that the *Lifeworld*, also known as the *world-taken-for-granted*, the *common sense world*, or, in the adaptation of the psychologist James Gibson, as *ecological physics*, will be considered as the foundation of all possible meaning. It also imposes particular requirements on us to explicate basic notions such as those of sign,

iconicity, and pictoriality. In many ways, ecological semiotics is closer to, and more compatible, with the basic tenets of Peircean semiotics than with the Saussurean brand.<sup>2</sup> This is particularly true if the latter is understood as conceived by French Structuralism. In this framework, many of the concepts of Saussure-inspired semiotics retain their import, but only on a secondary level. However, one basic notion of Saussurean linguistics, hardly taken into account by French structuralism (but certainly by the Prague school), the notion of pertinence or *relevance*, is a fundamental ingredient in my interpretation of iconicity. It will resurface in the guise of the interpretation given to the Peircean notion of ground.

## 1. From iconicity to iconic signs

It is not clear whether Peirce intended to say that there are three properties which transform a phenomenon into a sign — iconicity, indexicality, and symbolicity — or if he just wanted to suggest that things which are signs could, moreover, have the properties of iconicity, indexicality and/or symbolicity. No matter what Peirce intended, I will here accept the latter interpretation. I will therefore give a characterisation of the sign, in terms much more specific than those used by Peirce, or for that matter by Saussure, and I will go on to suggest in what way iconicity, indexicality, and symbolicity may accrue to something which is already a sign. I will then consider what these notions may amount to outside the context of signs.

### 1.1. The sign as prototypical semiosis

Late in his life, Peirce realised that all his notions were too narrow: instead of “sign”, he reflected, he really ought to talk about “medium”,

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<sup>2</sup> On Peircean phaneroscopy as one of many possible variants resulting from Husserlean phenomenology, see Sonesson 2009b.

“branching” or “mediation” (CP 4.3 and MS 339, quoted by Parmentier 1985). Indeed, he even remarked that there was something “injurious” to making the word “sign” do a much bigger job than that to which it was fitted. Here Peirce sounds very much as Humpty Dumpty becoming at last aware of his ruse. And yet, it is also in accordance with Peirce’s “ethics of terminology”, which states that we should not introduce terms that “interfere with any existing term” (see EP 2: 263–266). Strange to say, those who like to think of themselves as the true Peirceans do not seem to have taken into account this piece of self-criticism on the part of Peirce.

In the following, I will take the sign to be one of the (more complex) ways in which meaning may be realised. Let us start out by considering what some central instances of signs could be, and then try to determine what they have in common. The linguistic sign is clearly an instance. The picture sign (in a sense which will be elaborated on below) is, I believe, basically similar to the linguistic sign, and so are at least some gestures. Play-acting, as well as children’s symbolic play, would seem to be of the same general kind. I am not, of course, arguing that these kinds of meaning are all conventional, as would Umberto Eco, Nelson Goodman (1968), and many others whose arguments I have long ago rejected (see Sonesson 1989, 1993, 1995, 2000a). I am not even arguing that play-acting or symbolic play instantiate the same kind of iconicity as the picture; indeed, I am comparing all three of them to the linguistic sign, which is basically conventional. However, they all possess that which would allow the presence of a convention, just as well as a motivated relation: (at least) two parts. Indeed, Saussure (1973) here was the more subtle phenomenologist: quite apart from what it connects to in the outside world, that is, the referent, the sign itself has two parts, because beside that which is perceived, it also contains something which construes the referent in a particular way.

According to Jean Piaget's account of child development, every child goes through a number of different stages enhancing his or her capacity for understanding. Of particular importance in the present context, however, is Piaget's (1967[1945], 1967: 134ff, 1970: 342ff) claim that, on the border between sensori-motor thinking and concrete operations, around 18 months of age, the child learns to master "the semiotic function" (originally called the symbolic function), which involves, not only language, but also, notably, drawing and symbolic play. Piaget does not deny that the child experiences meaning before this age, for instance in perception (thus anticipating the criticism of Trevarthen, Logotheti 1989), but he thinks that it is only with the attainment of the semiotic function that the child is able to conceive meaning as something differentiated into a signifier and a signified. It should be kept in mind, nevertheless, that Piaget is here talking about the capacity for *producing* language, pictures, etc., and not the ability to interpret them. As in the case of language, the capacity to understand pictures would most naturally be taken to precede any ability to produce them. However, we are not concerned here with the moment of emergence of the sign function, but with its structure.

The notion of *differentiation*, which is normally overlooked, is fundamental in my view. But it is also indispensable to maintain the distinction between subjective and objective differentiation. The semiotic function, or, as I will say from now on, the sign (function) requires "a differentiation, from the subject's own point of view, between the signifier and the signified" (Piaget 1967: 134f). Thus, for instance, the visible extremity of an object that is almost entirely hidden from view is the signifier of the entire object for the baby, but it also happens to be "an objective aspect of the signified" and thus, according to Piaget (*ibid.*), it cannot be a sign. But when the child uses a pebble to signify candy, Piaget claims, the child is well aware of the difference between them, that is, there is subjective differentiation.

Although Piaget obviously does not say so, his notion of differentiation is, in my opinion, different from Hockett's "design feature" of displacement (see Hockett, Altmann 1968). Elsewhere, at least, I have taken the view that a label on a bird case showing the picture and the name of an animal that is also present in the cage is still differentiated and therefore a sign (see Sonesson 2009b). On the other hand, displacement would seem to presuppose differentiation.

Curiously, Piaget takes for granted that something which is not objectively differentiated cannot be subjectively so. However, we can imagine this same child that in Piaget's example uses a pebble to stand for a piece of candy having recourse instead to a feather in order to represent a bird, or employ a pebble to stand for a rock, without therefore confusing the part and the whole: then the child would be employing a feature, which is *objectively* a part of the bird, or the rock, while differentiating the former from the latter *from his point of view*. Moreover, contrary to what Piaget (1967: 134) submits, the hunter, who identifies the animal by means of the tracks, and then employs them to find out which direction the animal has taken, and who does this in order to catch the animal, does not, in spite of the existence of a physical and temporal relationship between the animals and its tracks, confound the tracks with the animal itself in his construal of the sign, in which case he would be satisfied with the former. Indeed, if the tracks are not differentiated from the animal having produced them, they cannot be read as signs, but only as a part of the complex situation of which the animal is a part. Differentiation may possibly be a result of the object that serves as signifier not being continuous in space and/or time with the object serving as signified, as well as of taking the signifier to be of a different general category of the world than the signified, but there could also be other criteria that remain to be delineated.

If Saussure and Piaget may be said to have made a fairly good, but not particularly explicit, phenomenological job, Husserl himself could be expected to have some contribution to offer to the phenomenology

of signs. Indeed, Husserl's discussion of signs (which he calls "representations") may help us spell out what is involved in "subjective differentiation". According to Husserl (1939), indeed, two or more items may enter into different kinds of "pairings", from the "paired association" of two co-present items through the "appresentative pairing" in which one item is present and the other indirectly given through the first, to the real sign relation, where again one item is directly present and the other only indirectly so, but where the indirectly presented member of the pair is the theme, that is, the centre of attention for consciousness. This clearly implies that the sign is asymmetrical in a double sense: one part of it is more in focus than the other, and the second of its parts is more directly accessible than the first one. In perception, on the other hand, the highest degree of focus and directness coincide.

But we should take these observations further: since what is at stake is a thematic structuring, and this structuring itself is relative to a subject for whom it is a part of the field of consciousness, the first part of the sign is in some sense a stand which the subject may take on the other. In more familiar terms, the first part of the sign is "about" the other. Of course, this more readily applies to the relation between the content and the referent, where the latter corresponds in the world outside of the sign to that with which the sign is concerned. Husserl (1980), in fact, makes this distinction clearly only in his study of picture consciousness, where he notes that the depicted Berlin palace is here in the picture, whereas the real palace is in Berlin (see Sonesson 1989: 270ff, 2006; Zlatev 2009). As I have suggested elsewhere (Sonesson 1989: 193ff), we would thus have to suppose some kind of thematic hierarchy going (in the ordinary case) from the expression through the content to the referent.

Thus we can minimally define the sign by the following properties:

- a. It contains (at least) two parts (expression and content) and is as a whole relatively independent of that for which it stands (the referent);

- b. These parts are differentiated, from the point of view of the subjects involved in the semiotic process, even though they may not be so objectively, that is, in the common sense Lifeworld (except as signs forming part of that Lifeworld);
- c. There is a double asymmetry between the two parts, because one part, expression, is more directly experienced than the other; and because the other part, content, is more in focus than the other;
- d. The sign itself is subjectively differentiated from the referent, and the referent is more indirectly known than any part of the sign.<sup>3</sup>

There are reasons to believe that the sign, in this sense, is available to very few, if any, animal species apart from human beings (let alone single cells), and that it is acquired fairly late in child development. To demonstrate such a claim is certainly not easy, because we cannot simply ask apes and doves, or for that matter, infants or somewhat older children, whether they have signs. Thus, we must have recourse to experimental studies, where the measures obtained can only be indirect.

The picture could be considered the best testing case, because, unlike the linguistic sign, it must contain both similarity and difference. Some comments are in order: first of all, it would be preposterous even to suggest that animals are incapable of all kinds of semiosis. We are involved here with a special kind of semiosis defined as sign. In the second place, there is no presumption in the present context, hidden or not, that pictures are common in nature, contrary to what Maran suspects<sup>4</sup>. Indeed, the only picture-like object featured in nature is no doubt the surface of water, if we do not take into account the kind of latter-day humanized nature that includes

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<sup>3</sup> The referent will also ordinarily be more in focus than the sign, if we suppose what in Anglo-Saxon philosophy of language is called “opaque contexts” to be the exception. See Sonesson 1989: 193ff.

<sup>4</sup> This and later comments by Maran come from the editorial review of the present article, if not indicated otherwise.

polished metal sheets (and later on real mirrors). Whether an enhanced experience of pictures may be capable of augmenting the picture interpretation skills of animals is indeed the question.

Experiments have shown that even children 5 months of age look longer at a doll than at its picture (DeLoache, Burns 1994). However, it does not follow from this that the children see the picture as a picture. Indeed, 9 months olds, but not 18 month olds, try to grasp the object depicted as if it were a real object (DeLoache 2004); whatever the difference they perceive, then, it does not seem to involve signs as opposed to objects. This result shows that the picture and its object are seen as being different, but not necessarily as forming a sign-vehicle and its referent. The real doll is perhaps seen as a more prototypical instance of the category; or, alternatively, the real object may be more interesting because of having more perceptual predicates.

In an interesting study realized within the SEDSU-project (Zlatev *et al.* 2006), baboons, chimpanzees, and gorillas were tested with pebbles or slices of banana, either real or in photographic pictures, which were presented in different contrasted pairs (Parron *et al.* 2008; summarized in Sonesson, Zlatev, forthcoming).<sup>5</sup> A considerable majority, all species put together, chose the real banana, and very few chose the picture of the banana when the real banana was opposed to its picture. Most of the primates tested, except for the chimpanzees, also showed a reliable bias for the banana picture over the real pebble, as well as for the picture of the banana over the picture of the pebble. Moreover, a majority of the primates, but no chimpanzees, show a tendency of trying to eat the banana pictures. Therefore, it might be intimated that the chimpanzees, different from the other primates, have some understanding of signs, rather than simply seeing the

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<sup>5</sup> The SEDSU project (for “Stages in the Evolution and Development of Signs Use”) was a EU-financed research project involving semioticians, linguistics, psychologists and primatologists from Sweden, Great Britain, Germany, France and Italy, and for which the present author wrote the conclusions, together with Jordan Zlatev (Sonesson, Zlatev, forthcoming).

banana picture as some less good instance of the category of bananas. Another experiment within the SEDSU-project involved a single chimpanzee, Alex, who had been trained to imitate 20 different action sequences beforehand, and who in a new experiment was solicited to perform these actions, prompted, not by a live model as before, but by being shown the actions on video, colour photographs, black and white photographs and drawings (Call *et al.*, forthcoming). Of particular interest is the fact that the chimpanzee was able to accomplish these actions when shown pictures representing a pre-final phase of the sequence just as well as when confronted with pictures of the final state. It would seem far-fetched to suggest that the chimpanzee is here simply confusing the still photograph and the action, in particular when the photograph shows an incomplete action, where the picture prompting the action is distinct from the action requested, both because it is a static view of the action and because it does not show the action in its complete or most characteristic state. Perhaps, then, the understanding of picture signs is within the purview of chimpanzee capacities.

## **1.2. Iconicity, indexicality, symbolcity — within the sign**

It is customary to distinguish iconic, indexical, and symbolic signs. Although similar divisions have been made many times before, Peirce's terminology is nowadays the one that is most often used. However, from this terminology follow certain presuppositions, some of which may be welcome to us, when considered from a phenomenological point of view, while others being less so. In the following, I do not want to quarrel with this trichotomy. Instead, I am going to present an interpretation of this particular Peircean trichotomy, which seems to be compatible with phenomenological experience, as far as it goes, to the extent that iconicity, indexicality, and symbolcity are distinguished from their use in forming grounds and as further bases for sign functions.

The division between icons, indices, and symbols is one of the Peircean trichotomies. It thus necessarily relates to the basic categories Firstness, Secondness, and Thirdness, in that order. Conceived in strictly Peircean terms, iconicity is one of the three relationships in which a *representamen* (expression) may stand to its *object* (content or referent). It is one of three kinds of relationships that may be taken as a “ground” for some two things forming a sign. More precisely, iconicity is the first kind of these relationships, termed Firstness, “the idea of that which is such as it is regardless of anything else” (CP 5.66), as it applies to the relation in question. Considerations of iconicity must start out from the iconic “ground”, or what has been described as the “potential iconic sign”. Peirce himself identifies “ground” with “abstraction” exemplifying it with the blackness of two black things (CP 1.293). In fact, some passages from Peirce (CP 1.551–3; EP 1:1–10) seem to suggest that Peirce would reserve the term “ground” for the portion of the expression singled out and use the term “correlate” for the corresponding part of the content. This would however seem to do away with the relational character of the notion involved.<sup>6</sup> It therefore seems that the term “ground” could stand for those properties of the two things entering into the sign function, by means of which they get connected, that is, both some properties of the thing serving as expression and some properties of the thing serving as content. The ground is a part of the sign having the function to pick out the relevant elements of expression and content. It thus corresponds to what Saussure calls “form”, as

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<sup>6</sup> Although Peirce does not mention this in any of the quoted contexts, this would seem to be an abstraction in both the senses which Peirce elsewhere takes care to distinguish: from the first point of view, this is a “dissociation”, because it separates the quality of being black from other colours (as distinct from “pre-scission”, which separates that which may exist independently, and from “discrimination”, which divide things which can only be so divided in thought); but it is also a “hypostatic abstraction”, because it goes from a property to an object (Husserl would talk about “nominalisation”). For an enlightening treatment of “Peirce’s two theories of abstraction”, see Stjernfelt (2007: 246ff).

opposed to “substance”, and which by his followers, in particular in phonology, has been termed pertinence or relevance.<sup>7</sup>

Paraphrasing Peirce, we may say that two items share an iconic ground to the extent that there are some or other set of properties which these items possess independently of each other, which are identical or similar when considered from a particular point of view, or which may be perceived or, more broadly, experienced as being identical or similar. A few glosses are required, however, which go beyond Peirce. Here similarity is taken to be an identity perceived on the background of fundamental difference. Two items sharing an iconic ground are apt to enter, in the capacity of being its expression and content, into a semiotic function forming an iconic sign, but the ground as such may also have other uses directly in perception. The latter possibility is different from what is conceived by Peirce, but it results from our concept of sign being much more precise and thus more narrow (see Sonesson 1989: 201ff, 2001a, 2007, 2008 forthcoming).

Contrary to the indexical ground, which is a relation, the iconic ground thus consists of a set of two classes of properties ascribed to two different “things”, which are taken to possess the properties in question independently, not only of the sign relation, but also of each other. Indexicality as such involves two “things” (Secondness), and may therefore be conceived independently of the sign function. Since iconicity is Firstness, however, it only concerns one “thing”. Indeed, as Peirce (CP 3.1., 3.362, 4.447) never tires of repeating, a pure icon cannot even exist: it is a disembodied quality, which we may experience for a floating

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<sup>7</sup> I do indeed think the ground must be a case of Secondness, since it is relational, as Table 1 should make clear, though I may be guilty of not spelling it out elsewhere, as De Cuyper (2008: 69) observes. Precisely because the (iconic) ground is relational, contrary to pure iconicity, there is thus no contradiction between what is said above, contrary to Timo Maran’s judicious remark, and the Peircean definition quoted below according to which iconicity as such is independent of any other property possessed by other things involved. See Sonesson 2006, 2007, 2009a, 2010, forthcoming.

instant when contemplating a painting out of awareness. Perhaps, then, to use some of Peirce's own examples, the blackness of a blackbird, or the fact of Franklin being American, can be considered iconicities; when we compare two black things or Franklin and Rumford from the point of view of their being Americans, we establish an iconic ground; but only when one of the black things is taken to stand for the other, or when Rumford is made to represent Franklin, do they become iconic signs (or hypo-icons, as Peirce sometimes said). Just as indexicality is conceivable, but is not a sign until it enters the sign relation, iconicity has some kind of being, but does not exist until a comparison takes place. In this sense, if indexicality is a potential sign, iconicity is only a potential ground. This is outlined in Table 1. One further remark is in order: given the more precise definition of the sign formulated here, as I have had to realise recently (cf. Sonesson 2006, 2007, 2009a, 2010 and 1.3 below), there clearly are numerous examples of symbolic grounds which are not signs (traffic regulations, and so on), although this unfortunately destroys the nice triadic harmony of the table.

*Table 1.* The relationship between principles, grounds, and signs, from the point of view of Peirce (as revised in the text). The symbolic ground is in italics in the table, because there are reasons to think Peirce would not allow for any such ground distinct from the sign relation.

	<i>Firstness</i> Impression	<i>Secondness</i> Relation	<i>Thirdness</i> Habituation/Rule
<i>Firstness</i> Principle	Iconicity	—	—
<i>Secondness</i> Ground	Iconic ground	Indexicality = indexical ground	<i>Symbolicity = symbolic ground</i>
<i>Thirdness</i> Sign	Iconic sign (icon)	Indexical sign (index)	symbolic sign (Symbol)

Since the iconic ground is established on the basis of properties the two items possess only because of being what they are, the standard of comparison must be something like similarity or identity. Indeed, Peirce also says that an icon (more exactly, a hypoicon) is “a sign which stands for something merely because it resembles it” (CP 3.362) or “partak[es] in the characters of the object” (CP 4.531). When conceiving iconicity as engendering a “referential illusion” and as forming a stage in the generation of “figurative” meaning out of the abstract base structure, Greimas and Courtés (1979: 148, 177), like many others, identify iconicity with perceptual appearance. In fact, however, not only is iconicity not particularly concerned with “optical illusion” or “realistic rendering”, but it does not necessarily involve perceptual predicates: many of Peirce’s examples (see Sonesson 1989: 204ff), have to do with mathematical formulae, and even the fact of being American is not really perceptual, even though some of its manifestations may be. This is the conception of iconicity that will be taken for granted here.

### **1.3. Iconicity, indexicality and symbolicity in the world**

Perception is imbued with meaning, and this meaning may often be iconic and/or indexical. According to the phenomenologist Aron Gurwitsch (1964: 176f), perception carries meaning, but “in a more broad sense than is usually understood”, which tends to be “confined to meanings of symbols”, that is, our signs. Indeed, as Gurwitsch (1964: 262ff) goes on to suggest, some kind of meaning (or, in our terms, semiosis) is already necessary for some irregularities on the surface to be perceived as being marks, even before these marks serve as carriers of the meanings found in words. Criticising other psychologists, Gurwitsch notes that the carrier of meaning is not part of the meaning of a sign, that is, the expression is not part of the content, unlike what happens in perception: the latter is made up of

perspectives (noemata) which are integral parts of larger wholes. Meaning, in the sense of the *Bedeutungslehre* of Jakob von Uexküll (1956) would be of this kind, and therefore would not involve any signs (see Sonesson 2007).

As I have formulated the same distinction elsewhere (Sonesson 1989), perception involves wholes which amount to *more* than their parts; signs have to do with something which is *something else* than what they stand for. When first formulating this distinction, I was certainly thinking of the way in which each item given to perception is integrated, horizontally so to speak, into a wider perceptual context, a configuration or *Gestalt*. Such a relation surely pertains to indexicality. But there is also a sense in which something is more than it appears to be at first, vertically, to pursue the same metaphor, because it is a member of a particular category. To the extent that we are talking about categorization as an immediate, that is, not a conscious choice (that is, in the sense of “categorical perception”), this clearly has something to do with iconicity. Not, to be sure, with iconicity *per se*, but rather with the iconic ground, because any ground must already suppose relational thinking. It will be noted that the two traits I suggested above to account for differentiation are designated to exclude too much indexicality (no continuity) and too much iconicity (not the same category) in this sense.

In the first neuropsychological treatise couched in Peircean terminology, written by Terrence Deacon (1997: 74ff), iconicity comes out as the night in which all cats are grey. It is the fact of there being no distinction: the perception of the same “stuff” over and over again. It is, he maintains, like camouflage: the moth’s wings being seen by the bird as “just more tree”. He goes on to suggest that iconicity is recognition, that is, the identification of a category, and even “stimulus generalisation” (Deacon 1997: 77ff). He then claims that “typical cases” such as pictures are essentially of the same kind: what makes pictures into icons is “the facet or stage that is the same for a sketch and the face it portrays”. At some level, this may be true: however, while the fact of there being no distinction is iconicity *per se*,

recognition and/or categorization would seem to require some awareness of a relationship, and thus must depend on an iconic ground, and a picture is a full iconic sign (indeed, as we shall say later on, a primary iconic sign; see Sonesson 2006).

In von Uexküll's classical example, the tick does not have to think twice when it perceives the smell of butyric acid emitted by the skin glands of a mammal; it does not have to tell itself that, although this is a human being, not a rabbit or a dog, they have the same smell. Actually, since there is only one such smelling event in its life, it cannot compare smells; but even if its span of experience had been larger, it has no business comparing. There simply is one mammal smell to the tick. This mammal smell may certainly be described as a type given in the genetic memory of the tick, as Maran suggests, but it is then the only type accessible to this memory.<sup>8</sup>

At some level, no doubt, human beings also perceive the world in this generality. It is often observed that we have a categorical perception of language sounds, since the physical characteristics are gradual, but at some point in this continuum, depending on the rules of our language, we perceive borders separating different phonemes. However, at the same time, we are able to make use of other information contained in the sound wave in order to determine the dialect of the speaker, his intonation, and so on. The tick, however, apparently does not care about the rabbit or dog modification of the general smell of butyric acid. More importantly, however, we can perceive some phenomenon to be an exemplar instantiating a particular type — which is to say that, at the same time as we are aware of the type, we can also acknowledge the exemplar.

The difference between type and exemplar is described by Peirce with the terms “type” and “token” (or “replica”).<sup>9</sup> In the previous

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<sup>8</sup> In strictly Peircean terms, this is of course not a “type”, but a “tone”, since we are at the level of Firstness.

<sup>9</sup> As noted above, the tick's experience is probably, in Peirce's conception, only a “tone”—which is Firstness, in the same trichotomy in which “token” and “type”

phrase, for example, the word “and” appears once considered as a type, but twice considered as a token. The letter “t” is also one type only, at the same time that only in the first sentence of the paragraph there appears eight tokens of it. This reasoning is easily extended to other systems of meaning; a reproduction of Leonard’s “Mona Lisa” is of the same type as another reproduction, but they constitute two exemplars or tokens of those that exist. Considered as a totality, this article is a single type, but it will appear in as many tokens as this journal is printed. As a first approximation, it seems that this article is a sign the type of which provides for more than one token which may be universally shared, and which may be said to remain at the point of origin while being sent out to circulate.

It is not clear, however, that there is an experience of parts and whole to the tick. What is for us, as observers, three cues to the presence of a mammal — the smell of butyric acid, the feel of the skin, and the warmth of the blood — do not have to be conceived, in the case of the tick, as one single entity having an existence of its own (a “substance”, in Gibson’s terms, see J. Gibson 1979, 1982), but may more probably constitute three separate episodes producing each its own sequence of behaviour. The butyric acid is there to the tick; the mammal is present only to us.<sup>10</sup> In addition, it does not make sense to say that either the butyric acid or the mammal is in focus or not. Nor is there any sense in determining whether the butyric acid or the mammal is directly given.

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are Secondness and Thirdness. But would not the experience of the tick already be at the level of a Peircean type, if it were already “symbolic”, as Stjernfelt (2007: 241ff) points out against Deacon with much justification? It is certainly not easy to determine the application of Peircean categories.

<sup>10</sup> “Us” must here be taken to be considerably wider than just the human species, perhaps co-extensive with the class of vertebrates, as Maran suggests. This seems feasible in the sense of the *extensional* hierarchy (there is one animal, not just a series of events), but not in the sense of the *intensional* hierarchy (very few vertebrates will have the concept of mammal, let alone of vertebrate). Cf. Sonesson 2009a, 2010 and the following paragraphs.

From the point of view of the tick, there can hardly be any difference. Not only are there no signs to the tick, there is not much of a world to explore. To be sure, there is no way for us to know how it feels to be a tick. But these distinctions seem utterly pointless in the Umwelt of the tick (that is, in terms of the functional cycle).

Everything in the world pertains to a particular type or category; this is iconicity, independently of the sign function. Everything is also made up of parts and/or appears in the neighbourhood of something else; this is indexicality, before it is even used to construct signs. Human experience is meaningful, because it is made up of things (“substances”, in Gibson’s terms), which have different properties, which are members of different categories, and which appear in varying contexts. In the world of the tick, as described by von Uexküll, or that of the single cell, none of this makes sense. Anecdotal evidence, and even some research (see Tomasello 2008: 42f), suggests that the Umwelt of dogs and cats, let alone apes, is much more akin to that of human beings.

In the common sense *Lifeworld* there are three ways of dividing any conceivable object: into its proper parts (for example, the head, the torso, the legs, etc., if the whole makes up a human body); into its properties (being male as opposed to being female, or being an adult as opposed to being a child, with reference to the same whole); and into its perspectives or adumbrations (the body seen from the back, the head seen in a three quarter view, etc. — see Sonesson 1989, 1996, 2000a, forthcoming). These are three kinds of factoricity, which, along with contiguity, makes up indexicality, not as a kind of sign, but as a ground. A more well-known term for this is mereology, which is the theory of parts and wholes, derived from Husserl’s (1913) early work, or rather from such precursors of Husserl as Twardowski and Meinong (see Cavallin 1990), but given this name by the logician Lesniewski (see Smith 1994, 1995; Stjernfelt 2000, 2007: 161ff). One may also think of at least the former two divisions as making up hierarchies: an *extensional* one, which goes from bigger proper parts to smaller ones (arm — forearm — hand — finger — nail, etc.) and an

*intensional* one, which starts with general properties and ends up with more particular ones (animate being — human being — man — old man — grumpy old man, etc.). The latter can be conceived as a series of ever more narrow circles of category membership. In extensional hierarchies subcategories are less space-consuming, while in intensional hierarchies extension is held constant (as long as you do not change the referent). The limits of the arm and the nail do not coincide, but it is the same man who is old and grumpy, and who is an animate being, although the latter property is shared more widely (and thus intensionally more wide-ranging).

The task of mereology is not only to account for the relations between the whole and its parts, but also to explain the difference between various kinds of totalities. Husserl opposes configurations to aggregates, and we find attempts of the same kind, but sometimes more developed, in the work of various representatives of *Ganzheitspsychologie* (see Sonesson 1989: 81ff). Peirce wrote a very long but rather disorganised list of various kinds of totalities (quoted in Stjernfelt 2000). More recently, many psychologists have been separating local cues from two modes of more holistic perception, “global processing” in which what is attended to are the highest level of hierarchical stimuli, and “configurational processing”, which is concerned with the interspatial relations between elements (see discussion in Sonesson, Zlatev, forthcoming).

Evidence for mereological experience outside of human beings is mostly indirect. The study of picture perception in doves and apes, and everything in between, may have failed to establish that the animals are able to perceive pictures as pictures, but it certainly shows that they attend to both similarities and differences between a human being and the corresponding picture, or a real banana and its depiction, respectively (see Sonesson, Zlatev, forthcoming). It also appears that pigeons are able to identify objects, not only when not all of their parts are included in the rendering, but also when the depiction is perspectivally deformed, at least as long as some “geons”

are included, that is to say, as long as there are some components of objects which can be recognized from different perspectives and which include the relation to other components of the same objects (see Peissig *et al.* 2000). Indeed, our study of Alex's attempts to imitate actions from static pictures containing some limited phase of the action could be taken to suggest that apes are able to identify events from time slices (Call *et al.*, forthcoming).

In their study of the genesis of grammar, Heine and Kuteva (2007: 150ff, 276ff) ponder to what extent "animal cognition" may comprehend "hierarchical taxonomic relations" such as inclusion (category membership), property relationship (our intensional hierarchies), and paronymy or meronymy (our extensional hierarchies), as well as social relationships, possession, and location. Although they take into account different evidence than we have mentioned here, they conclude that basic abilities for hierarchical thinking are present in such animals as have been studied, notably in apes, monkeys, and at least one grey parrot. They go on to propose that the underpinnings of recursion, which others claim to be specific to human language, are within the reach of "animal thinking" (Heine, Kuteva 2007: 278f, 296f). Whether they mean to imply that all that is lacking in animal thinking for (full) recursion to be possible is the access to certain grammatical constructions such as noun phrases and subordinate clauses is not easy to determine. Whatever makes the differences between recursion and/or language, on one hand, and animal experience on the other, it certainly does not seem to be the basic principles for grasping perceptual meaning.<sup>11</sup>

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<sup>11</sup> Heine and Kuteva (2007: 304) suggest that the presence in petroglyphs of animals without heads demonstrate that parts-whole relationships corresponding to the linguistic head-dependant structure were "conceptually present" 10.000–15.000 years ago. That seems an overdrawn conclusion. Since petroglyphs are picture signs, factoriality may very well have taken much longer to appear in pictures than in perception, but it does not follow that it appeared at the same time in language.

As for symbolicity, Peirce no doubt takes it to be synonymous with the sign relation (see Table 1). However, if symbolicity, in a parallel fashion to iconicity and indexicality, involves all conceivable connections between phenomena that are based on rules or habits, then the sign function is only a particular case of such symbolicity. Not only will there thus exist symbolic grounds in the Lifeworld which are not signs, in the sense defined above (traffic rules, for instance, the rules of chess, and so on), but it is also possible to base a sign function on a pre-existing symbolic ground, just as happens with iconicity and indexicality: thus, for instance, it has been a habit (or even a norm) for a long time in our culture for women to wear skirts, and thus the skirt may become a sign of a woman, as it does, indirectly by means of depiction, on the common variety of signs for indicating the ladies' restroom.

## 2. Primary and secondary iconic signs

In his definition of iconic signs, Peirce maintains that the property of iconicity is independent, not only of the sign relation (which is also true of indexical signs), but also of the relation between the two things involved. There are several ways in which the relevant notion of independence may be taken, some of which give quite absurd results: thus, there is a sense in which the portrait Leonardo made of Mona Lisa (or even Picasso's portrait of Gertrude Stein) cannot be said to be independent of the person depicted. On another interpretation, I would argue that the iconicity of some iconic signs is independent of the sign relation, in the sense that it is the perception of the iconic relationship which cues us to the existence of the sign relation; but then, conversely, the iconicity of other iconic signs is dependant on the sign relation, because the sign relation is that which makes us discover their iconicity. I have called these big groups of signs primary and secondary iconic signs, respectively.

## 2.1. The intervention of iconicity in the sign

The relative part played by iconicity and conventionality in a sign may be used to distinguish primary and secondary iconicity. In fact, to be more precise, we should distinguish primary and secondary iconic signs, since we are really involved with the way iconicity is assigned to signs. A primary iconic sign is a sign in the case of which *the perception of a similarity* between an expression E and a content C is at least a partial reason for E being taken to be the expression of a sign the content of which is C. That is, iconicity is really the motivation (the ground), or rather, one of the motivations, for positing the sign function. A secondary iconic sign, on the other hand, is a sign in the case of which *our knowledge that E is the expression of a sign* the content of which is C, in some particular system of interpretation, is at least a partial reason for perceiving the similarity of E and C. Here, then, it is the sign relation that partially motivates the relationship of iconicity. In a sense, what I here call secondary iconic signs are not very good examples of iconicity, as the latter is characterised by Peirce, for the definition clearly implies that, in at least one sense, the iconicity of the signs is not independent of their sign character: on the contrary, it is a precondition. Perhaps this does not have to be taken as an argument against Peirce's definition: iconicity *per se* may well be independent of the sign function, even though its presence in signs may sometimes be conditioned by the sign function. More precisely, what is at stake here is the independence of the iconic ground from the sign function.

Pictures are, of course, primary iconic signs in this sense, and they may well be the only kind there is. In fact, given the facts about picture perception in apes and small children referred to in the first part, there is a reason to believe that pictures are the only primary iconic signs for human beings which have reached at least the age of 2 or 3 years. Before that age, it could be argued, pictures are not primary iconic signs, because they are no signs at all, but are rather ranged with the

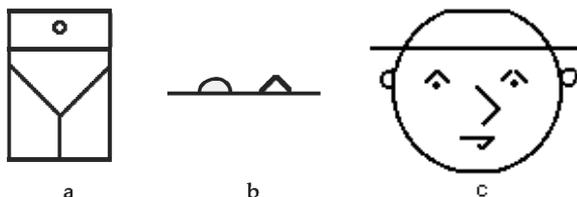
objects they depict in one and the same category. This shows that the primarity and secondarity of iconic signs is relative to a given (collective) subject.

On the other hand, no matter our age, we do have to learn that, in certain situations, and according to particular conventions, objects which are normally used for what they are, become signs of themselves, of some of their properties, or of the class of which they form part: a car at a car exhibition, a stone axe in the museum showcase or a tin can in a shop window, an emperor's impersonator when the emperor is away, and a urinal (if it happens to be Duchamp's 'Fountain') at an art exhibition. When used to stand for themselves, objects are clearly *iconic*: they are signs consisting of an expression that stands for a content because of properties which each of them possess intrinsically. And yet, without having access to a set of conventions and/or an array of stock situations, we have no possibility of knowing either *that* something is a sign or what it is a sign *of*: of itself as an individual object, of a particular category (among several possible ones) of which it is a member, or of one or another of its properties. A car, which is not a sign on the street, becomes a sign at a car exhibition, as does Man Ray's iron in a museum. We have to know the showcase convention to understand that the tin can in the shop-window stands for many other objects of the same category; we need to be familiar with the art exhibition convention to realise that each object merely signifies itself; and we are able to understand that the tailor's swatch is a sign of its pattern and colour, but not of its shape, only if we have learnt the convention associated with the swatch (see Sonesson 1989: 137ff).

When Man Ray makes a picture of a billiard table, we need no convention to recognise what it depicts. However, if Sherrie Levine's (real, three-dimensional) billiard table is to represent Man Ray's picture, there must be a label inverting the hierarchy of prominence of the Lifeworld. This shows that among the properties determining the probability of an object functioning as the expression of an iconic sign is to be found three-dimensionality rather than the opposite. Since the

inception of modernism, and particularly in the phase known as postmodernism, the sign function of pictures has been at the centre of interest: it is thus not surprising that artists, such as Levine, should employ themselves to inverse the normal Lifeworld hierarchy, which makes two-dimensional objects stand for three-dimensional ones, rather than the reverse. But similar things also happen in the world of everyday life: the Mexican woman who found Sweden to be full of “Barbies” made some inversion, because, building on her particular Lifeworld experience, she took real, animate, persons as being, at least for the duration of a speech act, representations of assembly-line fabricated objects, made of inanimate matter, that is, of dolls.

However, identity signs, such as those mentioned above, in which there could be said to be too much iconicity for the sign to work on its own, do not constitute the only case in which the sign function has to precede and determine iconicity. In other cases, the sign function must precede the perception of iconicity because there is *too little* resemblance, as in the manual signs of the North American Indians, which, according to Garrick Mallery (1972[1881]: 94f), seem reasonable when we are informed about their meaning. In Rudolf Arnheim’s terms (1969: 92f), a “doodle” is different from a picture in requiring a key, as Carraci’s mason behind a wall (Fig. 1b), or in “Olive dropping into martini glass or Close-up of girl in scanty bathing suit” (Fig. 1a). While both scenes are possible to discover in the drawing, both are clearly underdetermined by it. There are two ways in which we can try to avoid such an ambiguity. One is to fill in the details, in particular the details that are characteristically different in an olive and a navel, in the air and a pair of thighs, etc. At some point the doodle will then turn into a genuine picture. The other possibility, which is the only one considered by the critics of iconicity, is to introduce an explicit convention, such as Carraci’s key.



*Figure 1.* Two doodles and a picture which can be read as a doodle: a) Olive dropping into Martini glass or Close-up of girl in scanty bathing suit (inspired by Arnheim as adapted in Sonesson 1992). b) Carracci's key (Mason behind wall); c) face or jar (inspired by Hermerén 1983: 101).

According to Göran Hermerén (1983: 101), it is only because of “the limitations of human imagination” that we see Fig. 1c. as a human face, for it can equally well be perceived as “a jar from above, with some pebbles and broken matches on the bottom, and a stick placed across the opening”. Thus, it should be ambiguous in Bierman's sense. It all depends on what is here meant by the limits of human imagination: Gestalt principles, the face as a privileged perceptual object (see E. Gibson 1969: 347 ff), and so on, all conspire to make one of the readings determinate. While it is possible to find the elements Hermerén suggests should be there in the picture, it is impossible to see the interpretation as a whole without being disturbed by the other reading. Thus, it seems that when an expression has similarities to different contents or referents, one of these may be favoured because of properties of the expression itself, and is not overridden by convention.

No doubt the face is a very special object to human beings, which takes priority even to new-borns. At the level of cultural-specific properties, which are at least more general than the human face, we may consider the story of the Me', who had never seen paper, and thus were impeded to consider it in the humble part of forming the content plane of picture signs (see Sonesson 1989). But there seems also to be some more general facts as play with three-dimensionality, animateness, and movement being probably more prominent than their opposites, that is,

more likely to form the content side of an iconic sign, without any supplementary convention being stated. The case of three-dimensionality is instantiated in the comparison between the billiard-tables of Man Ray and Sherrie Levine. As for the “Barbies” of the Mexican woman, we must either suppose her to merely make a metaphor, or we have to take light skinned people to be so alien to her concept of people, that animateness, and even humanity, is overridden. This then is what I have termed the hierarchy of prominence of the Lifeworld.<sup>12</sup>

In fact, in order understand primary iconic signs, we need to reach a better understanding of the hierarchy of prominence. Consider a counter-example to my prototype hierarchy offered by Bordon and Vaillant (2002: 59; Vaillant 1997): an ice statue of a motor cycle is less familiar to Parisians than a real motor cycle, and yet when the former is exhibited in front of the town hall, there is no doubt to anyone that the ice statue is the signifier, and the motor cycle the signified. The authors are guilty of several errors of interpretation, and yet their example is interesting. The prototype hierarchy is based on the notion of prominence characterised by the cognitive psychologists Eleanor Rosch (1975; Rosch, Mervis 1975) and Amos Tversky as corresponding to prototypicality, frequency, intensity, celebrity, information, and so on. In this sense, if “familiarity” may, on some occasions, be the opposite of prominence, there are many other possibilities. But this also means that the concept of prominence is rather unclear: at least, it seems to be too open-ended. In any case, as I have conceived it above, the prototype hierarchy would not apply to

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<sup>12</sup> In a curious little essay, Davidsen and Munkholm Davidsen (2000: 82) take me to task, because, in their view, the concept of a hierarchy of prominence only apparently solves the problem of accounting for the natural asymmetry of the iconic sign: while it “might be taken to explain why an image of a man is the iconic representation of this man [...], this does not contribute much more than to systematising relativism”. Systematic relativism is not that relative any more. In fact, it is the sense in which the Lifeworld, as Husserl points out, is subjective-relative.

objects as such (except, perhaps, in some particular cases, as the face), but to some of their properties. Not the ice statue of a motor cycle, but perhaps ice as a material, might be argued to be “less prominent” (perhaps in the sense of more homogeneous, more ubiquitous in the history of mankind, etc.) than motorcycle parts. In the Me’ story, it is paper, not particular things made out of paper, which is ranked too high on the scale.

But the example is also quite different from those I have discussed above, which either involved a two-dimensional object representing a three-dimensional one (as in the case of pictures), or a single three-dimensional object being the sign of the class of which it is a part, of some of its properties, and so on. It is, however, similar to cases I have taken up elsewhere (notably Sonesson 1989: 336ff; in press): the tailor’s dummy and artificial food made out of plastic or wax, as seen in Japanese restaurants. The outcome of that discussion was that there were certain properties that were intrinsically more prominent in the human world, such as, apart from three-dimensionality, animateness and movement. The last of these features may of course be the factor that makes the real motorcycle more prominent than the one made out of ice. But a more general argument could in fact be made from the example of artificial food. There is a reason why the wax food is taken to represent the real food, rather than the opposite. Food is defined by the functional property (or the ‘affordance’ as Gibson would say; J. Gibson 1982) of being edible, and that is exactly the property which wax food lacks. The motorcycle, similarly, is defined by the property of being a vehicle, which is an expectation that the ice statue can hardly fulfil. If this shows that the ice motorcycle is no real counter-example, it also demonstrates the complexity of secondary iconicity. The prototype hierarchy should not be expected to form some rigid structure fixed once and for all.<sup>13</sup>

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<sup>13</sup> This also shows that the “Barbie” example given above is much more complex than what I hinted at: from the point of view of animateness, and the like, even the

Another, more important lesson of this discussion, however, is that primary and secondary iconicity should not be taken to be an all or none affair: just as a sign may contain iconic, indexical and symbolic properties at the same time, it may very well mix primary and secondary iconicity.

## 2.2. Iconicity in language and pictures

When talking about the arbitrariness of the (linguistic) sign, Saussure in fact was concerned (as noted most clearly by Bertil Malmberg 1977: 131ff) with two different relationships: within the sign, between expression and content; and between the sign as a whole and the world of our experience, often called the referent. The first relationship is arbitrary, because there are no properties possessed in common by the content and the expression; the second relationship is arbitrary, because (according to Saussure) the way in which signs segment the world are not prefigured in the division of the world itself. Thus, there is no more justification for calling a “bull” /bul/ than for using the sound sequences /bøf/. And on the other hand, reality does not give us any clues whether a certain phenomenon should be characterised with one sign, such as “wood”, or divided between two different signs, such as “bois” and “forêt”. If arbitrariness can be found between different elements of the sign, its opposite, motivation, which is the term Saussure used for iconicity, must also be able to manifest itself in

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Mexican woman does not really consider the doll to be more prominent than the human beings who are blond (or so I would hope). It is when attending to hair, skin colour, and the like, that she ranks the Barbie doll higher on the scale than those alien human beings seen in Sweden. This is the stuff of which metaphors are made. (See Sonesson 1989, 2010). Interpreted in another way, it is the point of departure of the distinction which is basic to cultural semiotics. (See Sonesson 2000b).

multiple relationships (see Fig. 2 and Sonesson 1989: 203ff).<sup>14</sup> More cautiously, we should perhaps talk about three potentially iconic relationships: between expression and content, between expression and referent, and between content and referent.

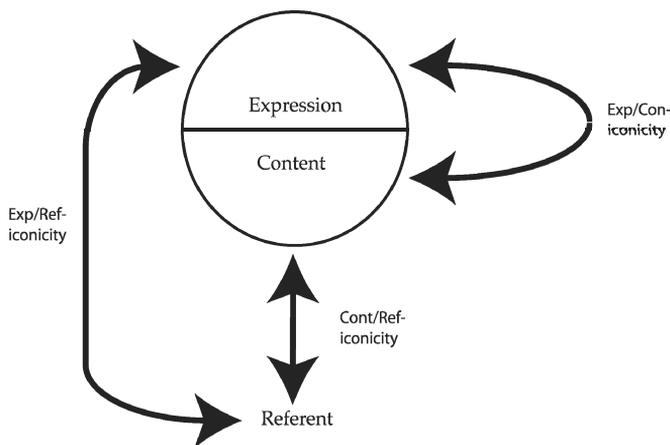


Figure 2. The linguistic sign. Arrows stand for (potential) iconic relationships.

Moreover, the two cases mentioned pertain to different aspects of similarity or its opposite: in the first case, we are concerned with the different subdivisions of expression and content; in the second case, it is the outer borders of the sign and the corresponding phenomenon in the world which are involved. If the first is on the level of what was known

<sup>14</sup> It would be natural to understand motivation to include both iconicity and indexicality, but this is not how the term is used by Saussure. In the *Cours*, Saussure is really only interested in “relative motivation”, which is a relationship between signs, not between expression and content, such as for instance “pommier” (“apple tree”) being justified by “pomme” (“apple”). In other passages, however, which I quoted in Sonesson 1989, he talks about mime being motivated but having “a rudiment of arbitrariness”.

in structuralist semiotics, following Hjelmslev, as “figurae”, the latter is firmly on the sign level. In addition, the former concerns the properties of expression and content, respectively, while the latter has to do with the way signs and the corresponding chunks of reality are divided up.

In the picture, the case is even more complex. It has been argued by Husserl (1980), and, no doubt independently, by Richard Wollheim (1980), that we “see in” the depicted object directly into the physical object which is the picture expression, making more or less each element of the expression correspond to the content. But Husserl goes on to note that this is not the whole story, because although we can see human figures “into” the spots on the surface of the photograph, what we see still has “photographic colours”, and not the colour of real human skin. This may seem a dated observation, but in fact all pictures reduce the scope of colours rendered in relation to reality. In Husserl’s terminology, the *picture thing* is that which may hang askew on the wall, the *picture object* is the child in black and white which is seen into it, and the *picture subject* is the object of the world which is taken to be depicted, the real child with rosy cheeks. But here Husserl’s cautious phenomenology does not seem to go far enough. To separate the picture object and the picture subject Husserl also offers the distinction between the palace that is seen into the picture and the real palace which is in Berlin. However, the fact that there may no longer be any palace in Berlin does not deter us from noting the difference between a palace in black and white and a real palace. Thus, the *referent* must be separated from the picture subject, which remains at the level of types, since it is different from the picture object simply by adding our knowledge of the nature of things in the world.

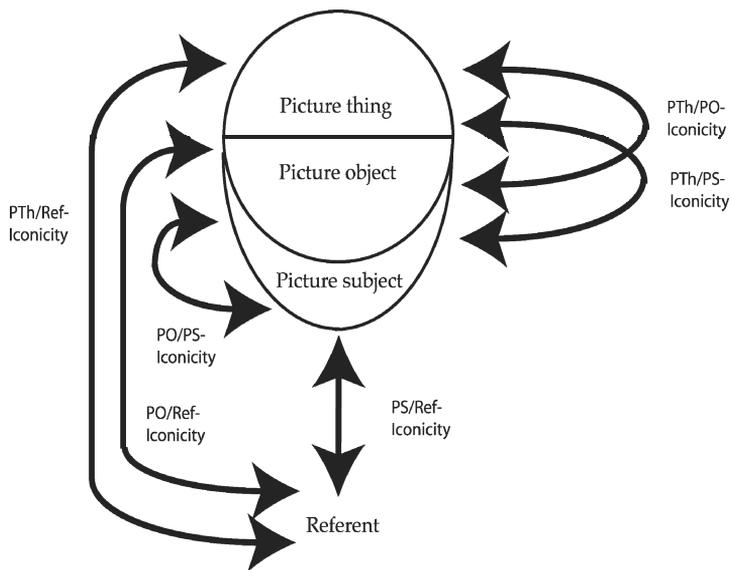


Figure. 3. The picture sign. The arrows are (potential) iconic relationships. The text mentions some examples of what may be implied, but it is far from clear whether all those distinctions have experimental counterparts.

Iconicity thus *potentially* involves *six* iconic relationships: between the picture thing and the picture object, between the picture object and the picture subject, between the picture thing and the picture subject; and between those three and the referent (Fig. 3). In actual fact, all these relationships may perhaps not be meaningfully distinguished. However, it is interesting that it is for the relation between the picture object and the picture subject that Husserl requires similarity (1980: 138f. and *passim*), i.e. for two instances that are roughly equivalent to Peirce's "immediate" and "dynamical object". Except once, when he says that a relief is comparatively more similar to its picture object (Husserl 1980: 487ff), Husserl never discusses the similarity of the picture object and the picture thing. Nor does he consider the similarity of the picture thing and the picture subject, which is the

closest we come to Peirce's relation between the "representamen" and the "object". It is in the relation between the picture object and the picture subject that pictoriality may be more or less *extensive*, and more or less *intensive*, that is, concern a greater or lesser number of properties, and realise them to a greater or lesser degree ("Extensität" and "Intensität der Bildlichkeit", Husserl 1980: 56f). However, there does not seem to be any reason not to apply extensivity and intensivity to all iconic relationships. In addition, extensivity can obtain in relation not only to the division of the object into properties (for example, "red"), but also into proper parts (for example, "cheeks"), and, at least in the case of pictures, perspectives (for example, seen from upper left). Such a definition derives from mereology, the study of the ways to divide up the things of the world.

From the point of view of the relation between sign and referent, the kind of iconicity present in language would seem to be largely secondary. This has been argued independently by De Cuyper (2008: 80) and Sonesson (2008). However, the truth may actually be that the kinds of interpretation characteristic of primary iconicity and secondary iconicity have to be applied in several rounds, in order to account for the process of interpretation as it occurs, as suggested by Ahlner and Zlatev (this volume) from the study of the kind of iconicity rather inappropriately known as "sound symbolism". This again suggests that primary and secondary iconicity may not be the most appropriate terms for the phenomena we have delimited.

### **3. Two extremes of iconicity: from mimicry to mime**

In the night of all iconicities, there is no difference between "the same stuff again", mimicry, pictures, imitation, and pantomime. On the contrary, we will explore in the following the different ways in which iconicity pertains to mimicry and similar phenomena and to imitation

in several senses of the term, including (panto)mime. In the first case, the fundamental question will be for whom iconicity is supposed to obtain. The second case involves the more subtle case of acts being presented by somebody to somebody else.<sup>15</sup>

### 3.1. On mimicry, scarecrows, and effigies

It has been suggested by Carlo Ginzburg (2002) that the origin — whatever he means by that — of signs (or “representations”, as he puts it) it to be found in the effigies of kings and other heroes created after their death. The idea behind this reconstruction is easy to understand: someone of importance (to some particular person, or more commonly to some tribe or culture) has died, and to make up for his absence, a surrogate must be created. Or, at a more generic level, a human being is needed to scare the birds off the field (supposing “human being” to be a concept in the world of birds), and since a human being cannot always be around, a scarecrow is erected in his place. Or, to retain our scope on remarkable individuals, the Chinese emperor and, more recently, Saddam Hussein, were known to have their doubles. The idea can then be generalized to the sign being anything standing for something that is absent.

But neither the scarecrow nor the doubles are “about” human beings. They are not typical signs, if we take the latter to be exemplified by such things as language, pictures, and gestures. Signs, as we have seen, are standpoints taken on the world of our experience — that is, in Piaget’s terms they are conceived “from the subject’s point of view” (though normally the subject is a social one). Scarecrows, doubles and (perhaps) effigies do not present human beings in their absence, thereby taking a stand on what they are. Understood in this

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<sup>15</sup> It goes without saying that mimicry, mime, and other phenomena discussed here may also have indexical and symbolic traits, but these are not our business.

way, surrogates would seem to be of the same general kind as camouflage, but quite the opposite of signs. Elsewhere, I have taken Deacon (1997: 76ff) to task for claiming that camouflage in the animal world (such as the moth's wings being seen by the bird as "just more tree") are essentially of the same kind as those "typical cases" of iconicity we are accustomed to call pictures (Sonesson 2006). In fact, camouflage will only function as such, to the extent that *it is not recognized for what it is*, whereas, on the contrary, a picture, or any other sign, can only work as a sign, to the extent that it is seen to be a sign, and not, for instance, another instance of what it depicts or otherwise signifies (that is, a picture of a banana, and not only a bad instance of the category "bananas"). In this respect, scarecrows, just as Saddam Hussein's doubles, are like camouflage, because they only accomplish their function, as long as they are not recognized for what they are, that is, for not really being human beings or Saddam Hussein, respectively. As recounted by Ginzburg, effigies seem to be rather similar to our scarecrows. They are still different from camouflage, familiar in the animal world (but not, of course, as a military procedure), in being known by their creator (though not their receiver) not to be the real thing.

However, perhaps there is a more subtle sense in which effigies may be different from scarecrows from the beginning: by being known to be different from heroes, but still standing in their place, instead of being about them. Perhaps a better example of this would be the understudy, in the way that term is used in the theatre: the person who takes over the part normally played by a well-known actor in no sense "means" that actor. He simply is equivalent to the actor for the purpose of the performance here and now. Indeed, we should rather think about what the scarecrow is to the farmer: something taking the place of a human being for a particular purpose, but certainly not signifying "human being". Perhaps we could say that this is the case where Searle's (1995) formula, "X counts as Y in C" really applies. Effigies, understudies, and the scarecrow from the farmer's point of

view do share some properties with signs: if they are understood as such, they stand for something which is different from themselves, so in order to grasp their function, you must get a sense both of their equivalence to what they stand for, and the difference between them and what they stand-in for. Thus, there is certainly a differentiation here, and some kind of asymmetrical relationship between the two items involved: but there is no possibility of one item being in any sense a stand taken by a subject (including a collective subject) on the other item. To see the difference, one may compare with exemplifications (things standing for themselves, for the category of which they are members, or for some property they have) and, in particular, what I have elsewhere called pseudo-identities, which are objects having all or most perceptual properties of the thing they stand for, but not those defining them: wax food, which cannot be eaten, the dummy showing the cloths in the shop window (see Sonesson 1989: 336ff and 2.1 above).

Camouflage, as the term is used by Deacon, is a particular case of (biological) mimicry, as Timo Maran (2007) has observed. According to Maran, mimicry in this sense is “a message (feature and signal) of one organism, the *mimic*, [which] resembles some message of another organism, which usually belongs to a different species, some feature of the environment, or a generalization of either of those, that is called the *model*”. As Maran judiciously points out, resemblance between two individuals of the same species is not mimicry. This is important, because we recognize the distinction we have observed earlier on between membership in a category and the sign function. Maran goes on to point out that the resemblance should have some functionality for the bearer. Thus, for instance, it may protect an animal from a well-known predator. Finally, accidental resemblances are not included, but only those which have a continuity in an evolutionary timescale.

Except for the final characteristic, mimicry is similar to the case of the scarecrow: to work it must not be detected as such by the receiver.

However, the scarecrow is a human-made device, which means that, while for the receiver of the message it is simply a feature of the environment, for the sender it shares at least with the sign the characteristics of being differentiated and asymmetrical. In mimicry, on the other hand, neither sender nor receiver is in any way involved with anything that resembles a sign. The mimic and the model, and thus the iconicity, only exists for the outside observer.<sup>16</sup>

### **3.2. Imitation as learning procedure and as sign**

Imitation is clearly central in some sense to the emergence of the sign. It also has obvious iconic traits. Imitation, or, more exactly, “representative imitation”, is claimed by Piaget (1967[1945]) to be at the origin of the semiotic function. When more closely scrutinized, however, some instances of imitation actually turn out to be signs, while others clearly are not. Indeed, some kinds of imitation would appear to be processes that are prerequisites to the emergence of the sign function.

In his model of human evolution, Merlin Donald places imitation within the second stage of human development, mimesis. This conception has been extended to child development, and made considerably more precise, by Jordan Zlatev (2007; 2009). In Donald’s view, mimetic culture starts out with the emergence of “conscious, self-initiated, representational acts, which are intentional [that is,

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<sup>16</sup> In a perspicacious comment, Maran censors my assumption that animals are not aware of being camouflaged. In many animal groups (moths, grubs, frogs), he goes on to say, “there are preferences for the selection of the resting place to achieve maximum correspondence between one’s appearance and the surrounding visual environment”. However intriguing this observation is, the underlying mechanism is still unclear, and, more to the point in the present context, camouflage is certainly possible without such alignment on the environment.

voluntary] but not linguistic” (Donald 1991: 168). The examples given by Donald are things like gesture, dance, ritual, mime, play-acting, and (precise) imitation, but also tool use (or perhaps rather the social generalization of tool use) and skill.<sup>17</sup> Somewhere in between mimesis and language the sign function arises, though Donald notes this only obliquely, mentioning the use of intentional systems of communication and the distinction of the referent.

One may wonder why tool use and skill are thought to be part of mimetic culture and not just “routine locomotor acts” or “procedural memory” which Donald (1991: 168) elsewhere takes pains to separate from mimesis. No doubt Donald (1991: 171ff) would answer that they are different because they comply with his criteria for mimetic acts: they are “intentional” (that is, voluntary), “generative” (that is, analysable into components which may be recombined into new wholes), and “communicative” (or at least, as we shall see “public”). Moreover, they have reference (“in mimesis the referential act must be distinguished from its referent”, that is, in our terms, there must be differentiation), stand for an unlimited number of objects, and are auto-cued (produced without an external stimulus). Generativity is a property of many kinds of meaning, which are not signs. However, it is not clear in what sense tool use and many other kinds of skill are “communicative”, and therefore, in which way they have reference and stand for an unlimited number of objects.

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<sup>17</sup> Curiously, Donald (1991: 170) claims to have derived his idea of mimesis from the literary theorist Erich Auerbach, who wrote a history of realist literature with this very title. It would have been more fitting to refer to the sense of the term mimesis in Antiquity, not perhaps as used by Plato to describe the relationship between perceptual reality and the world of ideas, but rather to one of the usages to which the term is put, mainly by Aristotle, as the representation of action by action, different from (verbal) narration or diegesis. For a quite different sense of “mimesis”, see Maran 2003.

Table 2. Imitation in different senses of the term, distinguishing, in particular, imitation as an act (process) separating type from token, and imitation as a sign, depending on the distinction between expression and content.

	Imitation (Token/Type)	Imitation as Learning (Extracting Type from Token)	Symbolic play (Expression/ Content)	Play-acting (Expression/ Content)
<b>Direct</b>	Instantiates a type of act	Extracts a type from one or several (novel) token acts	Represents a type of (habitual) act — or perhaps token outside of time and space	Represents an individual act in time and space
	Using the typical means for realising the type hammering the nail	Observing the hammering (first token) extracting the type for doing hammering (second token)	Realising the typical acts of the mother part	Creating the appearance here and now of being Hamlet doing Hamlet things
<b>Indirect</b>	Doing the type of act having as goal to hammer a nail	Extracting the type of hammering a nail	Doing what mothers usually do to their babies	Doing as Hamlet did in Elsinore during the Renaissance
	Imitation as act — token vs. type		Imitation as sign — expression vs. content	

After introducing “communicativity” as a criterion of mimesis, Donald (1991: 172) goes on to say that “although mimesis may not have originated as a means of communication, and might have originated in a different means of reproductive memory, such as tool-making, mimetic acts by their nature are usually public and inherently possess the potential to communicate”. This, though, is very different from imitation as a sign, which is what is realised by the actor, who presents his acts to a specific public; it is even different from the child’s symbolic play, which must be available to and shared with other children. What we have here is, first, the extraction of a token from a type, which supposes treating the other as a spectacle, that is, something to be gazed at (called the “spectacular function” in Sonesson 2000b); and second, the realisation of the tool act, which is not public-directed, but can be made available to the public (Table 2). The use of the tool does require the separation of the typical properties from the single act occurring in the here and now, that is, relevance. In order to learn the use of a tool, you must at least be able to isolate the properties that should be imitated from those which are of no avail. However, even though this act of imitation may be observed, it is not part of its purpose to be observed. The case of imitation as accomplished by the action on a stage is quite different. When the actor who has the part of Hamlet lifts up the skull of “Poor Yorick”, then his act does not only consist in imitating what a man having that name supposedly did in Renaissance Denmark, but also in presenting this act as something to be seen, as a spectacular act (see Sonesson 2000b).<sup>18</sup> The symbolic play of children may perhaps be considered to be some kind of intermediary case, because its spectacular character is not its ultimate goal, but is only instrumental in making the play function as play; indeed, it is not intentionally offered as a spectacle for individuals not participating in the play.

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<sup>18</sup> Here, as elsewhere, I am considering the sign from the point of view of the receiver and/or interpreter. The experience of the actor is of course quite another issue (as pointed out by Ester Vösu).

As should be clear from the examples given above, tool use and other kinds of skill as such are not strictly speaking mimesis, because, according to Donald's own criteria, they are not communicative, although they are "public", which is why they lend themselves to imitation — which leads to generalization of tool use and skill in society. This is where they become different from routine acts and procedural memory. They are socially shared. They constitute a process of learning. But this is only possible if the act can be separated from the unique tool user and transferred to another user. That is, the act as token must be abstracted to a type in order to be realised in another token. What is shared is the type, in other words the scheme of interpretation, which defines the principle of relevance (in the sense of a rule that picks out the properties of one object being mapped onto another). In this sense (not in the sense of reference), a single mimetic act may correspond to various events.

It is therefore by means of imitation that the "extension of conscious control into the domain of action" (Donald 2001: 261) may be obtained. But the act of imitation, in this instance, is in itself not a sign. If I see somebody use a stone as a tool to crack open the shell of a nut, I may do the same thing, not to bring into mind the act of the other person I have observed, but to obtain the same effect. I attempt to realise the same act as he did, that is, to open the shell up, so that I can take out the nut and eat it. Instead of producing an expression that is non-thematic but directly given which refers to a content that is thematic but indirectly given, I am realising a new instance of the category of acts consisting in cracking open a nutshell.<sup>19</sup> Like Tomasello's apes, I may of course try to obtain the same effect without attending to

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<sup>19</sup> As Maran observes, comparative psychology may describe actions like these as being the result of "stimulus enhancement". In ordinary life, however, there is nobody around to make us focus on specific stimuli, so we must fix our attention ourselves, which is why relevance (that is, the distinction between type and token) is a prerequisite for imitation. In practice, it is not so easy to make the distinction, as numerous experiments have shown us. See Sonesson, Zlatev, forthcoming.

the adequate means, which would produce a failed act of imitation. Or, I may merely simulate the outer actions of cracking the shell open, without letting them have a sufficient impact on the physical environment, in which case I may either be engaged in symbolic play, play-acting, or simply practicing the movements. While it may be true that imitation as sign comes for free with imitation in the sense of learning, as Donald suggests (personal communication), and that thus most probably the sign function as such comes as a bonus once mimesis is attained, imitation in these two senses are at least phenomenologically distinct.

#### 4. Conclusions

In this paper, I have tried to spell out some important properties of iconicity and iconic signs, which are not usually taken into account. First, I suggested that the sign is in need of a much more specific and explicit definition than that given either in the Saussurean or the Peircean tradition — if it is going to be of any use in a theoretically developed and empirically grounded semiotics. In agreement with Peirce's late insight that all his terms were too narrow, I choose to open up semiosis, by take the Saussurean sign, never defined by Saussure, as being a good example of a sign, which means that pictures and (at least some) gestures are signs, too, but not many other phenomena often claimed as such, for example percepts and other meanings close to perception. We have to have recourse to phenomenological variation in the imagination in order to arrive at a specific concept of sign, but, in fact, while Husserl himself did provided us with the criteria of focus and directness, Piaget, being a phenomenologist *sans le savoir*, discovered an even more fundamental property, that of differentiation, presupposed by the former. Once the sign has been defined independently of properties like iconicity, indexicality, and (in a slightly different sense of independence)

symbolicity, and once iconic, indexical, and symbolic grounds are shown to be found in direct experience, as well as in combination with the sign function, Peircean insights may be mustered, without losing ourselves into the night of all iconicities, where mimicry and mime and everything in between cannot be told apart.

In the second part of the paper, I discussed two ways in which iconicity may be present in a sign, either as its condition or as its consequence, thus giving rise to primary and secondary iconic signs, respectively. In the case of the primary iconic sign, I said, we take the perception of the similarity of what is later doomed to be the expression and the content as a reason for postulating a sign relation, which is not otherwise motivated, or at least not sufficiently motivated without the perception of similarity. The secondary iconic sign, on the contrary, makes perceptible the similarity between expression and content, only once the sign is known to pertain, either because there is a similarity to too many different things for this particular similarity to be noted, or because, without the sign relation, the thing in question would not be taken as a sign, but as an object in its own right. In the domain in which it was first defined, visual iconicity, this distinction has proved very useful, distinguishing true pictures from doodles, identity signs, and similar meanings. There can be no doubt that this distinction has done a very useful heuristic job, but it is certainly not sufficient on its own, because, once we take a closer look, we realise that there are many intermediary cases between primary and secondary iconic signs, and this cannot be accounted for, in the way the distinction is now defined. Moreover, linguistic iconicity, with the exception of that which is sound based, seems to be exclusively secondary, which means the distinction is not of much help in that domain.

In the third part, mimicry, in the biological sense, along with some other phenomena such as effigies and scarecrows, were distinguished from true signs, because they have a different relation than signs to the recognition on the part of the interpreter of what they are. At the same

time, starting out from Donald's concept of mimesis, imitation was separated into a variety which is a kind of learning, supposing the extraction of a type from a token, and thus being a precursor to the sign, and another variety which as such is a sign, which is the case in pantomime and theatre. This distinction will however need further elucidation. Iconicity is clearly a variegated phenomenon, and much further study will be required in order to understand its manifold manifestations. We should certainly not declare the theory of iconicity finish any day soon. But we do need, I believe, a unified scheme of interpretation, although perhaps not a hierarchical one, if we are going to make any sense of the differences.<sup>20</sup>

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<sup>20</sup> My preoccupation with iconicity has been life-long, but the different projects with which I have been involved since the beginning of this century (SGB and SEDSU), and the collaboration within the Centre for cognitive semiotics, which I am heading since January 2009, has offered me new vistas on my old theme, which I have tried to exploit in the present paper. I want to acknowledge here the assistance afforded by numerous discussions in the above-mentioned fora.

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### **От мимикрии через мимезис к миму: рефлексии над всеобщей теорией иконичности**

Почти все теории иконичности относятся критически к своему предмету (напр., Гудмен, Бирман, ранний Эко). Я развил собственную теорию иконичности, чтобы спасти определенный тип иконичности, точнее — пикториальность, от подобной критики. Исходя из этого я считал нужным различать, с одной стороны, чистую иконичность, основу иконичности и иконический знак, а с другой — первичные и вторичные иконические знаки. Но сейчас обстановка изменилась. Концептуальные средства, созданные мною для объяснения пикториальности, в их применении другими исследователями оказались подходящими для анализа иконичности языка. В то же время некоторые семиотики определяют распространенную в природе мимикрию как тип иконичности. В эволюционной семиотике Дикона иконичность трактуется настолько широко, что она теряет свое значение, в то время как в понимании Дональда понятие мимезиса используется для обозначения только одной специфической фазы в эволюции иконического значения. Цель настоящей статьи — рассмотреть, в какой мере необходимо создание новых моделей иконичности при распространении теории иконичности на новые сферы знания.

### **Mimikrist mimeesi kaudu miimini: ikoonilisuse üldteooria refleksioone**

Peaaegu kõik ikoonilisuse teooriad on selle ainestiku kriitilised käsitlused (nt Goodman, Bierman ja varane Eco). Arendasin oma ikoonilisuse teooria selleks, et päästa teatud tüüpi ikoonilisust, täpsemalt pildilisust, säärasest kriitikast. Sellest lähtuvalt pidasin vajalikuks eristada ühelt poolt puhast ikoonilisust, ikoonilisuse alust ja ikoonilist märki ning teisalt esmaseid ja teiseid ikoonilisi märke. Samas, vahepeal on olukord muutunud. Kontseptuaalsed vahendid, mille ma löin pildilisuse seletamiseks on teiste poolt rakendatuna osutunud kohasteks keelilise ikoonilisuse analüüsil. Teisalt, semiootikud, kelle lähtealused on minu omadest erinevad, on määratlenud eluslooduses laialdaselt esinevat mimikrit kui ikoonilisuse tüüpi. Ikonilisust Deaconi evolutsioonilises semiootikas mõistetakse niivõrd avaralt, et see on kaotamas oma sisu, samas kui Donaldi tõlgenduses tähistab mõiste mimesis vaid ühte spetsiifilist faasi ikoonilise tähenduse evolutsioonis. Antud artikli eesmärgiks on uurida, mil määral on vajalik uute ikoonilisuse mudelite loomine ikoonilisuse teooria laiendamisel uutesse valdkondadesse.